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FIG. 2A

USER MODE

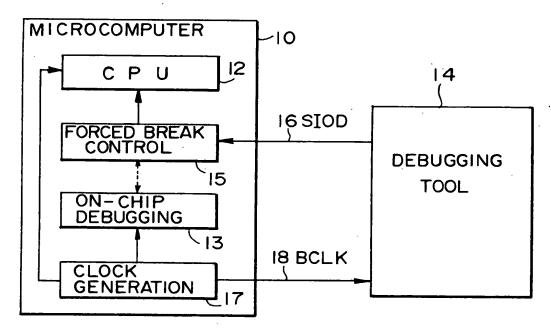
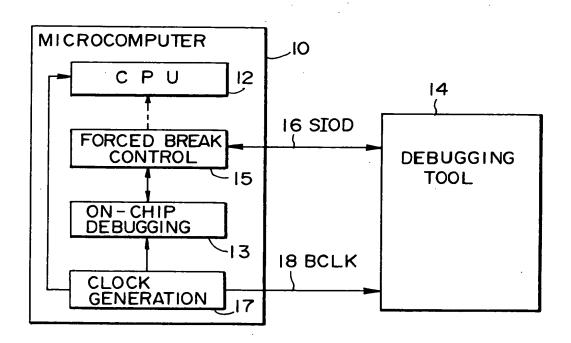


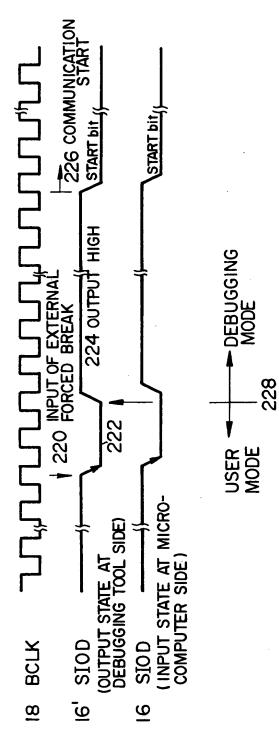
FIG. 2B

#### DEBUGGING MODE



6661 AON 6 3

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F16.3

FIG.4A
WHEN NO DEBUGGING TOOL IS CONNECTED

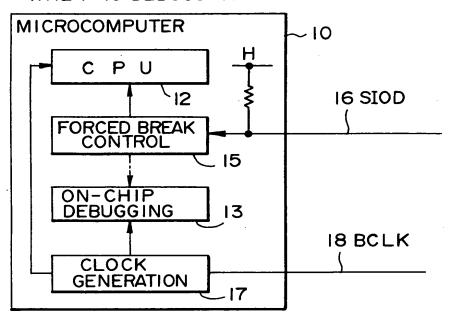
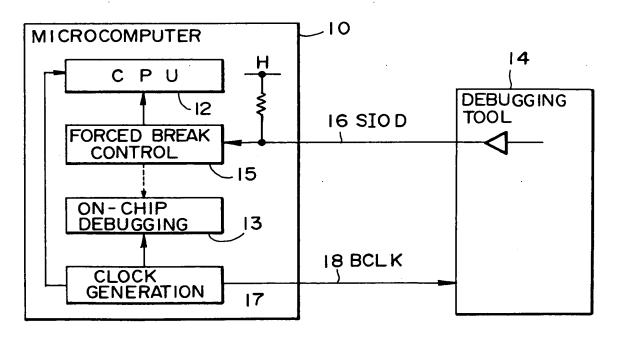
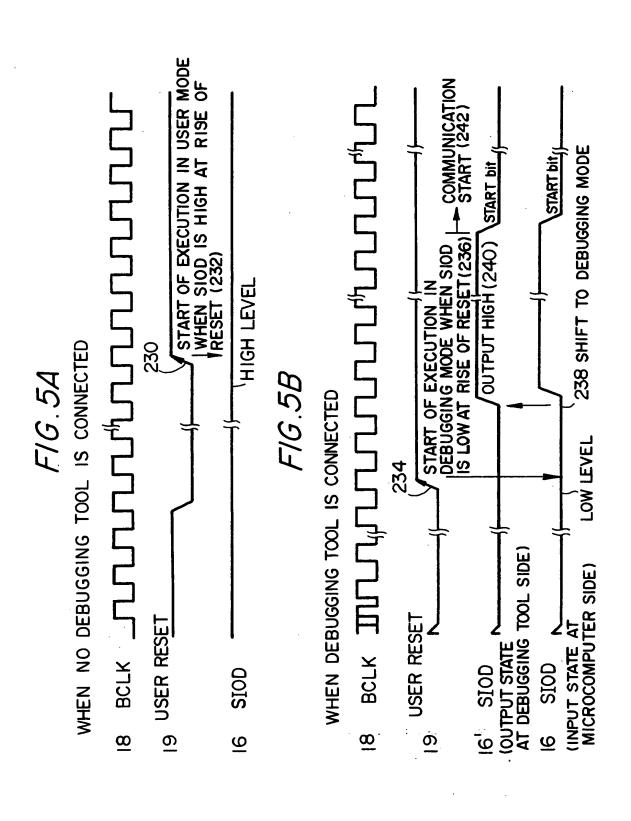
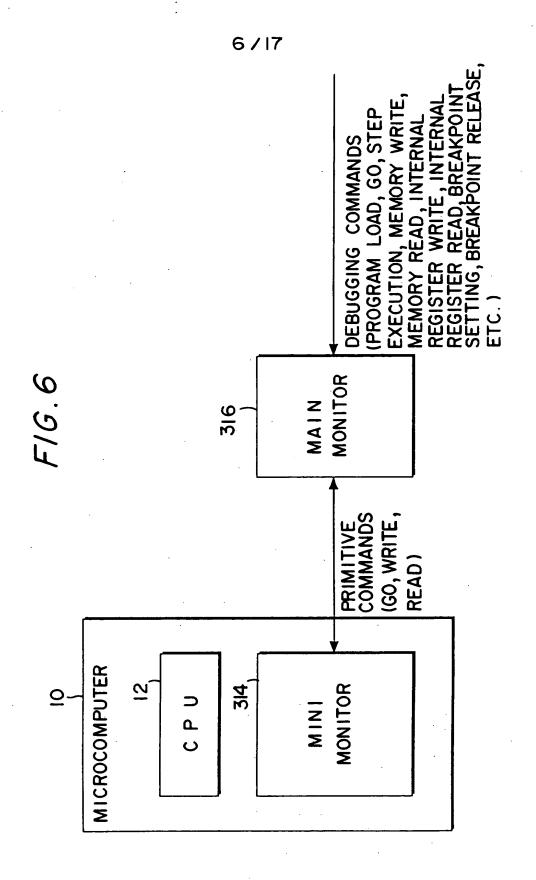


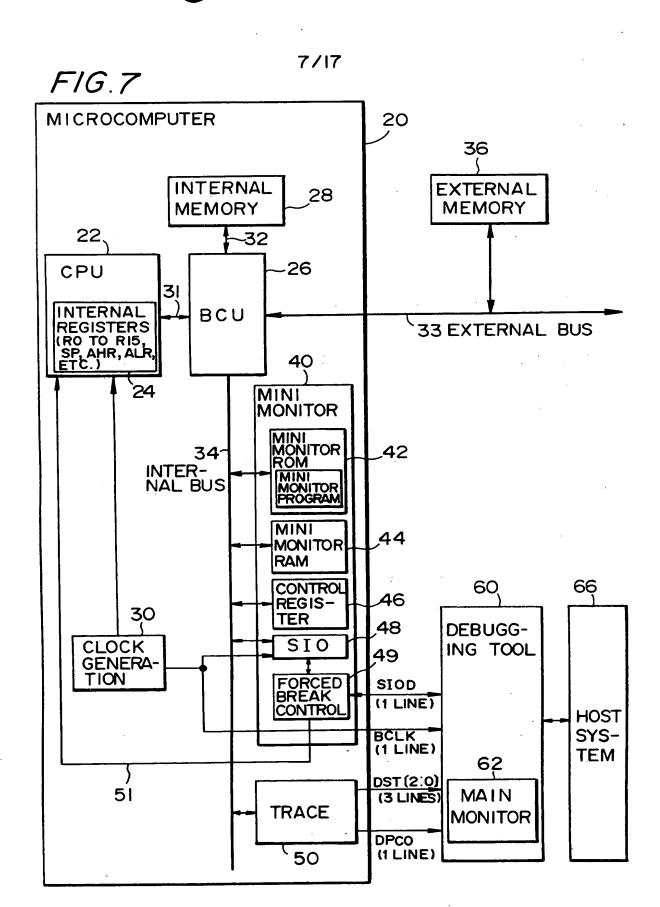
FIG.4B

#### WHEN DEBUGGING TOOL IS CONNECTED









# FIG.8

## MEMORY MAP IN DEBUGGING MODE

| FFFFFFh               | EXTERNAL<br>MEMORY  |             |
|-----------------------|---|-------------|
| 1<br>1<br>1           | EXTERNAL I/O  |             |
| <br>                  | EXTERNAL<br>MEMORY  |             |
| 1<br>1<br>1           | EXTERNAL<br>MEMORY  |             |
| l<br>1<br>1           | INTERNAL ROM  |             |
| 1<br>1<br>1<br>1<br>1 | CONTROL REGISTER (STEP EXECUTION ENABLE BIT, BREAK ENABLE BIT, BREAK ADDRESS BIT, ETC.) | DI          |
| ‡<br>1                | MINI MONITOR RAM  | D2          |
| 1                     | MINI MONITOR ROM  | <b>→</b> D3 |
| 1<br>1<br>1           | INTERNAL<br>PERIPHERAL<br>CIRCUITRY   |             |
| 0000000h              | INTERNAL RAM  |             |
|                       |   |             |

F16.94

PROGRAM LOAD

$$\begin{pmatrix} 80010h, I2 \text{ BYTES,ADD} ---, SUB --- \\ AND ---, OR --- & XOR ---, LD.W --- \\ + WRITE(80018h, ADD ---, OR --- ) \\ + WRITE(80018h, XOR ---, LD.W --- ) \\ + WRITE(80018h, XOR -$$

STEP EXECUTION

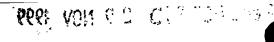
WRITE TO STEP EXECUTION ENABLE

BIT OF CONTROL REGISTER
+60

INTERNAL REGISTER READ ( READ OF MONITOR RAM ON MEMORY MAP

WRITE TO BREAK ENABLE BIT AND BREAK ADDRESS BIT OF CONTROL REGISTER Î BREAKPOINT SETTING

F/G. 90 BREAK



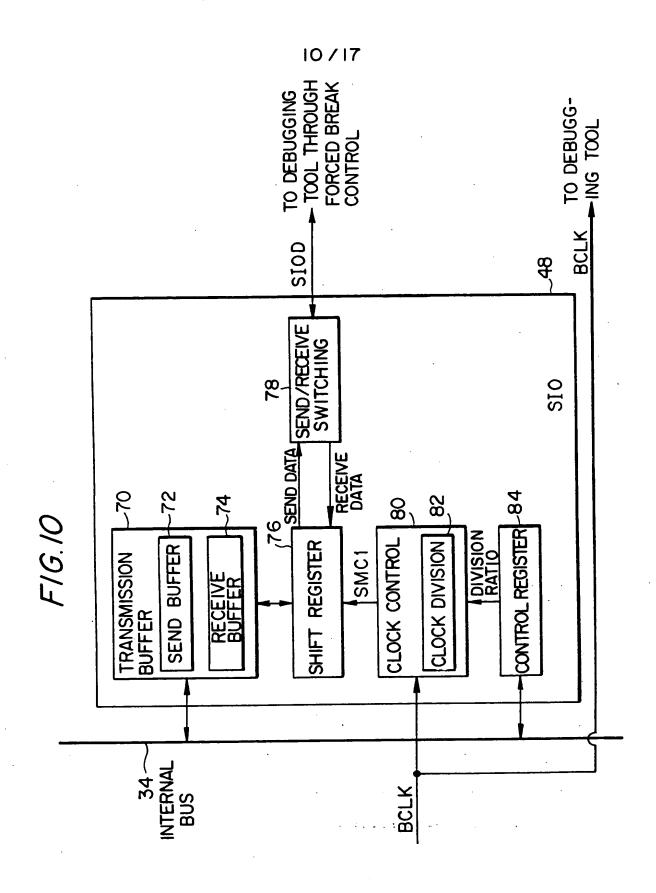
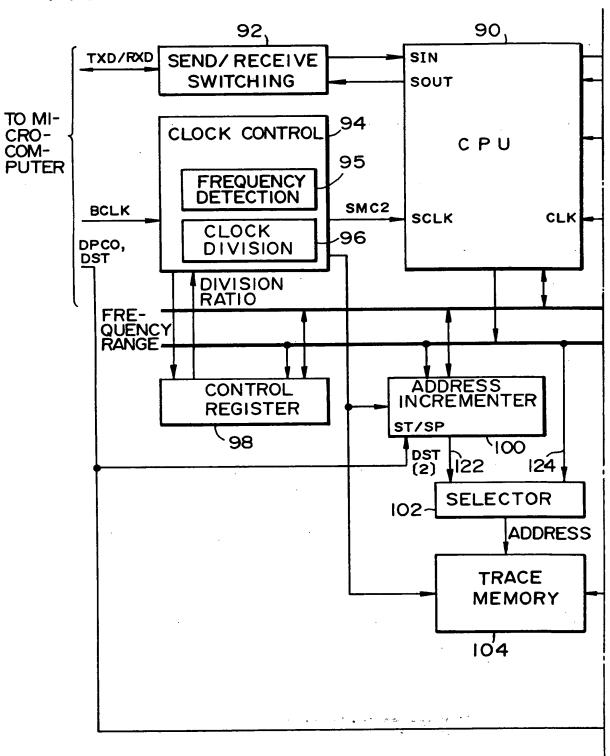


FIG. 11



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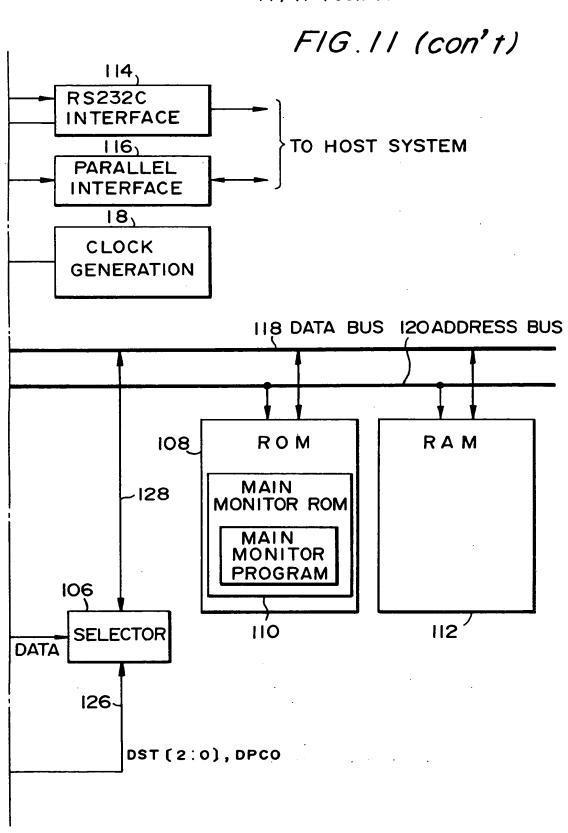


FIG. 12A

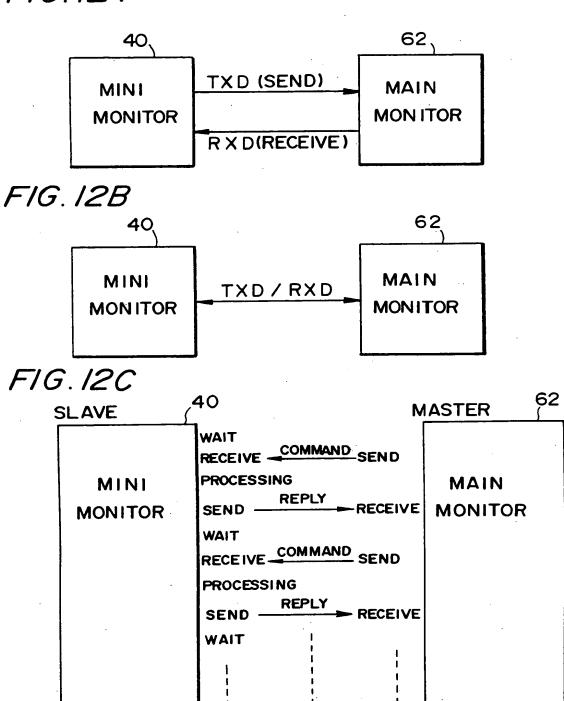


FIG. 13

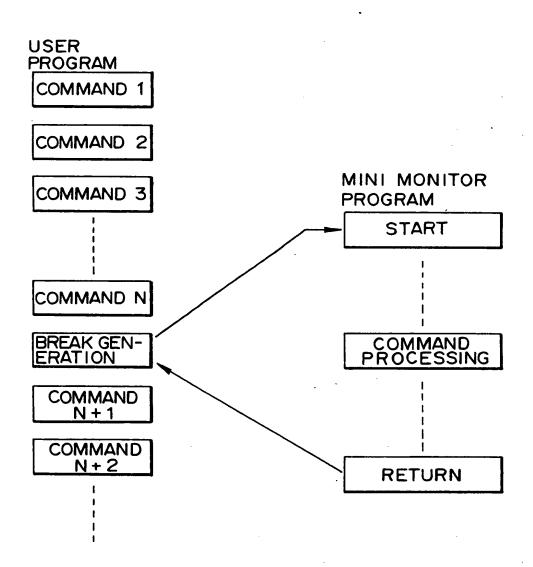


FIG.14

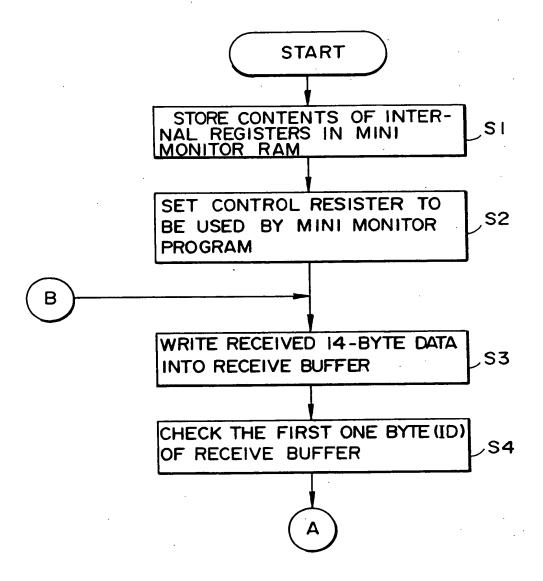
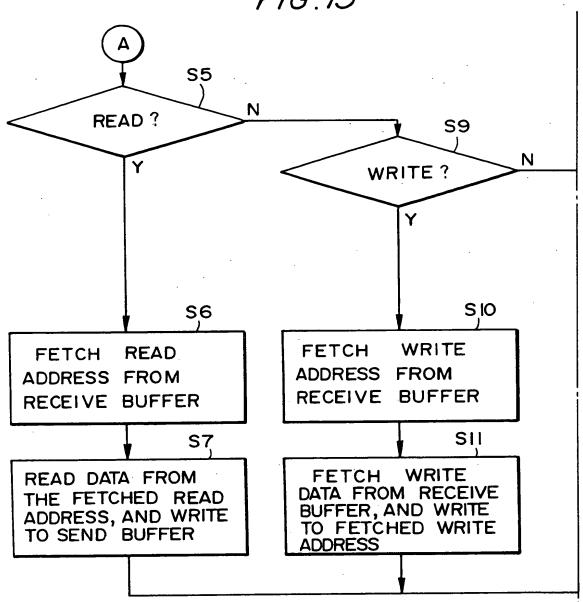
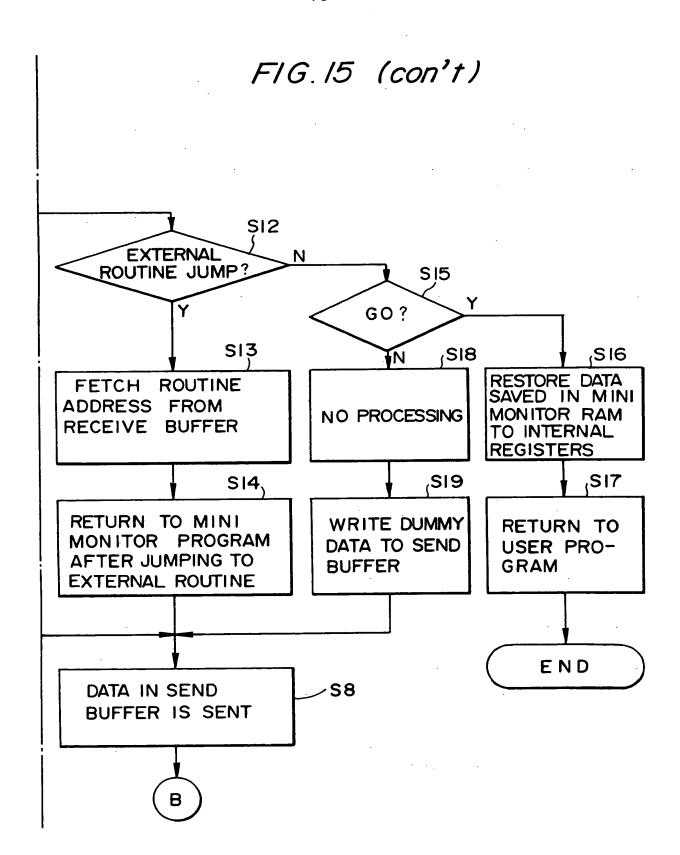
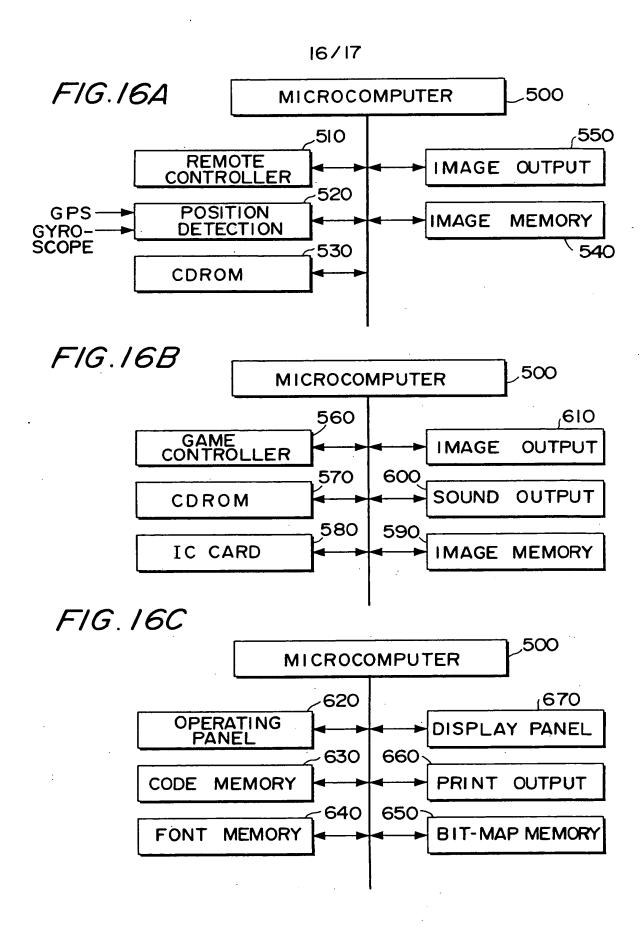


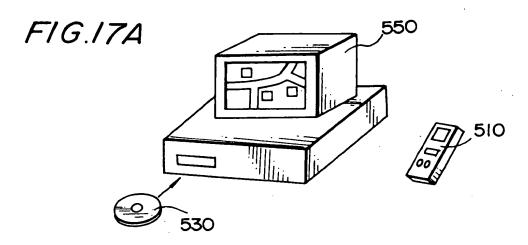
FIG. 15



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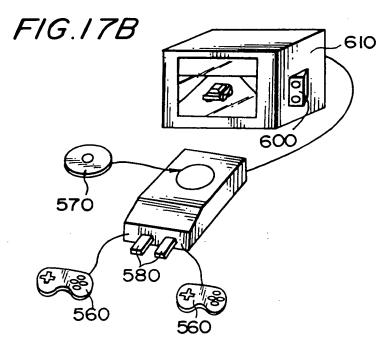


FIG.17C

